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ABSTRACT

Presented is an instructional guide for parents of severely and profoundly retarded and multiply handicapped children. Developed by 20 graduate students during a summer institute at Duquesne University, the guide suggests activities in communication, self-help and physical development. An introduction provides a definition of the severely involved child, a list of the types of professionals available for consultation with parents, factors involved in educational and residential placement, and an explanation of behavior modification. Suggested activities for developing communication skills include sensory stimulation, pre-speech and beginning speech games. Self help skill instruction is broken down into feeding, toileting, bathing, oral and nasal hygiene, grooming and dressing. Considered in the physical activities area are exercises for such skills as arm and hand strangth and control, techniques for people positioning, and procedures for emergency situations including convulsions and choking. Each section also provides selected references. Appended are a list of service directories for the retarded, as well as names and addresses of federal and national agencies concerned with exceptional children. (CL)

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The Pennsylvania Consortium for the Preparation of Professional Personnel for the Severely and Profoundly Mentally Retarded/Multihandicapped

AN INSTRUCTIONAL GUIDE FOR PARENTS

School of Education
DUQUESNE UNIVERSITY
1974

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In memory of

Mark Allen Leonard ---

who taught us more through his death than we taught him during his life

FOREWARD

For the past several summers Duquesne University has been privileged to offer an Institute in the area of mental retardation. Such educational endeavors have been made possible by federal grants through the Pennsylvania Department of Education under Part D, Public Law 91-230, as amended. In the summer of 1974, the School of Education was gratified to receive a grant for an Institute concerned with the preparation of teachers for the "Severely and Profoundly Mentally Retarded/Multihandicapped."

The Institute, which was successfully offered for twenty students, was conducted largely on site at a residential school. The essential results presented in this report were developed by faculty, students and parents. Hopefully, they will be shared with personnel in the field who have an interest in this important aspect of Special Education.

The University and the School of Education are most indebted to the professional personnel of the Bureau of Special Education of the Pennsylvania Department of Education for their leadership and assistance in the development of the Institute and to the administrative personnel at Western State School and Hospital and Intermediate Unit No. 01.

HELEN M. KLEYLE
Dean

INTRODUCTION

This Instructional Guide for Parents is the end-product of Duquesne University's participation in the Pennsylvania Consortium for the Preparation of Professional Personnel for the Severely and Profoundly Mentally Retarded/Multihandicapped. This book was written by the twenty graduate students, whose names appear in the Table of Contents, culminating a period of intensive work with selected residents of Western State School and Hospital during the summer of 1974. Although the students were responsible for the actual writing of this handbook, it would not have come to be without the cooperation and support of the many professionals involved in the project, and without the consent of the parents who permitted their children to work with us.

We, therefore, wish to publicly applaud and thank all of the following:

Dr. Ferman B. Moody, Director of the Bureau of Special and Compensatory Education, Harrisburg; Dr. William Ohrtman, Division Chief; and Mr. Jeffrey N. Grotsky, Special Education Advisor and Coordinator of the Consortium -- for their assistance, both professional and financial.

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Mr. Joseph McKenna, Director of Education, Western State School and Hospital, and Miss Jean Franzaglio, Head Teacher -- for support in initiating the project, for solutions to the day-by-day problems during its tenure, and for their professional time in meetings with the Duquesne staff, students, and parents.

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The parents -- whose many valuable suggestions have been incorporated in this book, and who gave so generously of themselves and their time in promoting the welfare of all severely involved individuals:

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Mr. & Mrs. Edward Kolessar
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Mr. Richard Muir
Mr. & Mrs. Ed Reber
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Mrs. Aurora Santoro
Mr. & Mrs. Orval Zimmerman

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Mr. Timothy C. Kelly, faculty member in the Special Education program at Duquesne -- for his lectures on behavior modification, his participation at the weekly parents' meetings, and his assistance in editing this book.

Mr. Henry J. Benz, Assistant Project Director -- for his valuable assistance in supervision of the trainees, his technical prowess in employing audio-visual equipment, and his aid in editing this guide.

One last word of thanks to the trainees whose many hours of difficult work culminated in two major gains. The first was the realization that each child progressed toward attainment of his or her prescribed goals as a result of having participated in this rather intense program. The second was the most gratifying communication among parents and professionals which, we hope, will be but one small step in the continuing dialog for the benefit of all handicapped children -- everywhere.

GLORIA M. ROCERETO
Director

AN OPEN LETTER TO PARENTS

Dear Mom and Dad:

With my teacher's help, I have the opportunity to express my feelings for you. First, Mom and Dad, I want to thank you for all the love, care and understanding that you have given to me throughout my life. I know that at times it has been hard for you to accept a low-functioning child like myself. I look, speak, and act differently than other children, and often this difference has caused people to stare at you and me. In spite of those stares and the many biting and sometimes thoughtless comments made by others, you have managed to love me, defend me, and provide for my happiness.

Parents of normal children often have confused feelings about themselves and their children at some time or another. Parents with a child like me with my many handicaps feel even more confused, helpless and frustrated. Even my teachers and others who take care of me cannot fully understand what you have gone through. To really know, they would have to walk a while in your footsteps.

I am considered an exceptional child. But what others often do not realize is that you also are exceptional people. You have given your love to me without a second thought, knowing that I might not show any signs of returning your affection. Thank you for being special and for being mine.

LOVE,

YOUR CHILD

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CHAPTER I: PHILOSOPHY AND RATIONALE

Recent events in Pennsylvania, initiated by a group of parents on behalf of severely handicapped children, have culminated in a concept known as "The Right to Education." This right, along with all other rights and privileges accorded to all children, has always been present; however, for severely involved youngsters, the Right to Education has not always been implemented. Because of this most recent attention to the severely handicapped, the focus on education for these individuals has been assigned top priority not only in Pennsylvania, but throughout the nation.

The question most often asked of parents and teachers is, "Why even try to educate severely involved individuals?" The answer to this question obviously rests in the inherent worth of the individual. Severely involved individuals are entitled to live the best possible life they are capable of living, and education and training are vital to the attainment of this quality of life.

Every child has the potential to learn. How much that child is capable of learning and the rate at which he learns depends upon the individual. Therefore, it is necessary to help each child reach his optimum and to tap every possible facet of the child's life. In

this way, the child is assisted in becoming as independent as he is capable of becoming.

Other questions often asked might be: "What is a severely involved child?" "What is meant by severe and profound retardation?" "Describe a child who is known as multi-handicapped." It is difficult, if not impossible, to respond with pat answers to these questions. Each child is like each other child. Yet, because each child is an individual in his own right, each is different from another. Perhaps the following general description will suffice as an answer to the previously-mentioned questions:

> A severely involved child is one whose physical, mental and/or emotional problems are so intense that they require educational, social, psychological and medical services beyond those offered by traditional regular and special education programs. Included in this category are the severely and profoundly mentally retarded, the seriously emotionally disturbed, and those with a combination of two or more serious handicapping conditions.

Special equipment and facilities may be necessary for the severely involved child. It is not the special materials, however, that are most important in the education of the child, but the people who are willing to work with and teach these children -- people who are willing to reach out and care enough to give them every possible chance.

It is apparent that, because of the complexity of disabilities in an individual such as described above,

many different professionals are called upon by parents in an effort to obtain as complete a diagnosis as is possible. Parents have expressed concern in regard to sources of help -- particularly when they seek diagnostic assistance. Certainly there is the necessity for involvement between parents and all professional disciplines, beginning with initial diagnosis, continuing through the present, and on to the future. Some of the professionals who might be consulted include:

Clergy -- may be in the unique position of being both a professional and a family friend.

Neurologist -- medical specialist in the diagnosis and treatment of disorders of the nervous system.

Obstetrician -- medical specialist in the diagnosis and treatment of diseases and pre-natal conditions of women.

Occupational Therapist -- specialist trained in developing basic elements of productive or creative activity.

Opthalmologist -- medical specialist in the diagnosis and treatment of diseases of the eye.

Orthodonist -- specialist in straightening teeth.

Orthopedist -- medical specialist in corrective treatment of deformities, diseases and ailments of the locomotor apparatus, especially those affecting the limbs, bones, muscles, and joints.

Parents of Severely Involved Children -- who are empathetic to the needs of other parents due to their own experiences.

Pediatrician -- medical specialist in the diagnosis and treatment of children's diseases.

Pedodontist -- specialist in children's dentistry.

Physical Therapist -- specialist trained in treating disabilities through physical modes.

Psychiatrist -- medical specialist in diagnosis and treatment of mental disorders.

School Psychologist -- specialist in evaluation of child's social and emotional behavior and mental capabilities.

Social Worker -- specially trained professional who acts as a liaison between community services and the family.

Special Education Teacher -- specially trained in the education of exceptional children.

Speech Therapist -- specialist in developing communication skills and correcting speech defects.

Certainly all professionals with whom parents come into contact are cognizant of the problems parents face now and in the future. The decision of the parents as to the future of the child rests solely with them, since the child is the parents' responsibility -- first, last, and always.

Ideally, children should be cared for in their own homes, if possible. Nothing can replace the special love and security a child gains from being a member of a family unit. There are, of course, considerations which preclude home care. In this case, some of the alternatives are: permanent residential placement in a public or private institution; temporary placement in a residential setting

(due to parent illness, etc.); weekday residential placement; or public school placement (day school) while the child lives at home.

The following factors are among those most parents consider in securing the best and most appropriate placement for their child:

1. Effect of child on the family;
2. Effect of child on siblings;
3. Financial considerations;
4. Marital harmony;
5. Child's care after death of parents;
6. Strenuous physical demands imposed by child;
7. Neighborhood attitudes toward child;
8. Availability of community services.

There are also facilities available for temporary placement in public or private institutions, in addition to summer camps and recreation programs.

Regardless of the child's placement, he still retains membership in the family unit, and therefore should be included in outings and other special activities enjoyed by the rest of the family. Although the severely involved child may not understand the purposes of the various family outings as his siblings will, he should not be deprived of experiencing his environment

on a first-hand basis. If the parents are realistic in their choices for outings, these should be pleasurable experiences for the entire family. The outings need not be elaborate or expensive. Children often enjoy simple activities. It is hoped that the following list will offer a variety of experiences and will trigger parents' own imaginations:

- picnics
- amusement parks
- local sites
- spectator sports
- Girl and Boy Scout activities
- parades
- airport
- farm
- zoo
- pet shop
- circus
- puppet show
- restaurant
- rides -- bus, train, plane, boat, pony or hayrides

In addition, some activities which are often taken for granted can be sources of pleasure:

- fireworks
- visiting relatives
- toy and/or clothing shopping
- car wash
- visiting Santa Claus
- swimming
- grocery shopping
- church
- walks
- Easter egg hunting

Even though some of these activities are commonplace in every-day life, parents might hesitate to take their severely involved child on outings because of inappropriate behavior. In all situations parents express concern about discipline, or as it is currently termed, behavior modification. Parents and teachers tend to be confused by this term, so perhaps a brief definition

will help: "Behavior modification is a means of teaching and reinforcing (rewarding) certain desired behavior in children. The theory behind behavior modification is simply that a child will tend to repeat that type of behavior which is reinforced. (Eventually, the desired behavior becomes its own reinforcement). One must wait for the desired behavior to take place before reinforcing it, rather than to promise a reward if and when the behavior takes place." (Atwell and Clabby, 1969).

All parents are hesitant at times to discipline their children. When there is a special child involved, this may be an even more difficult area to handle. But discipline, particularly if practiced through behavior modification techniques, can be considered a form of love and, certainly, is a way of making the child more secure.

No child learns without some discipline, and the severely involved child may need stronger guidelines since he is unable to learn as much through imitation and observation. If the child cannot reason out what is proper to do, he must be taught each expected behavior. If he exhibits a desired behavior, approval and/or reward must be shown immediately and consistently to the child so that he can relate this to his behavior. One of the most important advantages of using behavior modification techniques is that behavior modification emphasizes the positive aspects of the child (through reward) rather than the negative (as punishment would).

When teaching a desired behavior that is new to a child, it is important to remember that the behavior will not be learned immediately and as a whole. Therefore, the behavior must be broken down sequentially into small steps. When the child demonstrates the behavior of the first step, he is reinforced for it until the step is mastered. Then the child is ready to proceed to the next step, and so on, until he reaches the final step and achieves the desired behavior. This technique is known as "shaping" behavior.

A brief example of shaping might be self-feeding. The desired behavior would be to have the child feed himself. But in order to achieve this goal, the child might have to learn first to hold a spoon, put the spoon in the food, get something on the spoon, bring the spoon to his mouth, take the food off the spoon, remove the spoon from his mouth, and return the spoon to the plate. In this way the child will experience success with each approximation of the desired behavior (through immediate reinforcement), rather than the frustration which might come from trying to learn the behavior without any intermediary steps.

If the child exhibits an undesirable behavior (such as tantrums or self-abuse), another behavior modification technique can be used. In this case, the child could be taught an incompatible behavior. An incompatible behavior

is a substitute for the undesirable behavior. If the child is exhibiting the new (incompatible) behavior, he will not be able to perform the undesirable behavior. Since it may take time for the child to substitute this new behavior, it is beneficial to use shaping here as well.

A good example of these two techniques can be seen in a situation involving a blind and deaf child who continually hit the back of his head with his palm. It was thought that this behavior was a form of stimulation for the child. An appropriate incompatible behavior was to have the child hit the table in front of him. As long as the child hit the table, he could not hit his head (inteference); yet, he would still experience the tactile sensations and vibrations which served as stimulation to him. As the first step, every time the child showed the inappropriate behavior, his hand was gently guided to the table and tapped against its surface. Physical contact and food were used as reinforcers. Through shaping the child gradually began to bring his own hand down to hit the table and, finally, began tapping the table instead of his head. A process such as this may take weeks or months to accomplish, and it may require a great deal of reinforcement.

Reinforcement is another important factor in behavior modification. If the reinforcement chosen is not pleasing to the child (no matter how much the parent

or teacher thinks it should be), it will not be valid. The reinforcement must be rewarding to the child. Some examples of reinforcers are food, beverages, praise, affection, toys and activities. If the teaching period for a particular behavior is a long one, the child may tire of the same reinforcement, and progress may be impeded. Therefore, it is a good idea to observe a child's reaction to reinforcement and change it if necessary. The use of behavior modification is currently accepted and widely used by educators to bring about a positive change in the way a child behaves. The changes accomplished can lead to growth in all areas of the child's development. The sections which follow concern specific learning areas where one might employ these techniques.

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CHAPTER II: COMMUNICATION

"Communication is probably one of the most important elements in life." (Virginia State Department of Health) It is a highly rewarding skill. We use it to get what we need or want. We use it to express our feelings, vent our anger, or share our joy and happiness with others. The main tool of communication in our culture is speech, although gesturing, pointing, head and eye movement, and facial expression are also powerful tools of communication.

Communication between a parent and child begins in the crib when the child cries. The parent goes to the child, picks him up, fondles him, coos and imitates his sounds, and the child learns that making noises get a pleasant response. Sometimes he is cuddled, sometimes dried, sometimes fed. As he begins to smile and coo, he learns to express his feelings of happiness, anger, hunger, wetness, or sleepiness. He begins to reach out. He begins to follow the parent with his eyes and give the parent good eye contact.

As normal children respond with varying patterns of behavior to different tones of voice and different situations, so will the retarded child react in similar manner. It is important to note, however, that retarded children develop communication skills in the same developmental sequence, but at a slower rate. Therefore, it is vital to reinforce the slightest response. Per-

haps the child can only turn his head slightly or raise his hand a few inches as the parents play or work with him. Even though his movement is slight at this point in the child's development, it is his way of communicating to the situation. This should be reinforced with verbal praise, a smile, a hug -- any way that is most natural for the parent.

Many exceptional children have difficulty in speech development as well as other areas. These children can learn to communicate even if it is only to a limited extent. But each little bit will be an extremely rewarding experience, because suddenly, the child is no longer in a world all by himself, but has made contact with another human being.

In teaching exceptional children communication skills, one of the most important rules to remember is "repetition." Repetition is not only important in learning how to communicate, but it is necessary in teaching any skills to children.

A child with no particular problems seems to be able to learn almost automatically. He can do simple tasks after only a few trials. The exceptional child, however, may need many more trials before he is successful. After that he will need regular practice in order to retain what he has learned.

When a baby begins to coo, gurgle, crow, or grunt, it is very important to encourage him to make these

noises over and over again, and also add some new sounds. When the baby begins babbling, a game can be made of it by repeating the same noises back to the child. Eventually, parent and child develop a regular conversation, playing with sounds and socializing. Coos, grunts, and gurgles are sounds of contentment. A baby is most likely to make them when he feels good, for example, during and after meals, diaper changes, and bathing. Taking care of his physical needs or returning him to his crib after making him comfortable, are excellent opportunities to initiate these activities. The mother can make vocal play even more rewarding to the baby by gently stroking his head or rubbing his back or tummy while he is cooing and gurgling. Practice in soundmaking is very important for his speech development in the future.

If a vision or hearing problem is suspected, medical attention should be sought immediately. Simple tests for infant hearing include making a loud noise near him, banging a spoon against a pot, banging two blocks together, or other means of making sudden sounds. If the child shows no sign of being startled (a sudden jerk or blinking of the eyes), there is good reason to be concerned about his hearing ability.

The hearing impaired baby will begin to babble just like a hearing child; but, because he cannot hear him-

self, he will lose interest and stop his vocal play. "Mirrors suspended above the cribs of deaf babies have increased the babbling through visual self-stimulation." (Van Riper, 1963)

The exceptional child needs as much stimulation as possible to provide him with opportunities for learning. Instead of leaving him lying alone in his crib or playpen, move him around the house as much as possible. "Let him in on the smells and noises of the household." (Dittmann, 1966)

Many normal situations involving daily household duties offer parents opportunities to stimulate speech development as well as providing enriching experiences to the child. Moving the playpen or infant seat into the kitchen while preparing meals will afford the baby a lot of stimulation as he watches mother, hears her voice, smells the food cooking, hears the banging of pots and pans, and the rattling of silverware. When a child is able to sense mother's love and closeness, he will not feel rejected, but develop the sense of trust and security which is so important for any child's future development.

The child may appear, at first, to be unaware of his environment; however, in order to familiarize the child with daily routines, parents and siblings should speak to the child in conversational tones. As a re-

sult, he will become familiar with each of their voices and begin to associate them with everyday pleasant experiences.

It can be very discouraging to parents when the child does not respond to their efforts. Retarded children are usually slow in developing communication skills; but the more attention they receive, the more likely they are to begin responding. Retarded children have the same needs and develop in the same manner as other children, but they progress much slower and may not go as far.

> "It is important to remember that some retarded children never learn to talk like normal children or even, unfortunately, talk at all. When this happens, it is because adequate speech is beyond the child's mental ability and not due to any omission by the parents or any fault in their care and training of the child." (Speech, Children's Bureau Publication #374-1959)

Sensory Stimulation

Learning takes place through the senses. It is difficult to list an activity which does not require the use of more than one of the senses, especially those of vision, hearing, and touch. In the stimulation process, children may respond positively by reaching out or laughing, or negatively by drawing away or crying. These responses are termed receptive language and are the first step of speech development. They indicate that the child has re-

ceived stimulation through his senses. Receptive language precedes and is vital to further development of language skills.

There are many simple ways of stimulating a child's senses which can be fun for both parent and child. These can be done at any time of the day or night and in any area in or around the home. No special equipment is required.

The principle senses used for stimulation activities are those of vision (visual stimulation), hearing (auditory stimulation), and touch (tactile stimulation). For purposes of clarification, the terms of visual, auditory, and tactile stimulation are defined as follows:

Visual stimulation involves the use of the eyes. It deals with the concepts of eye contact, tracking, and eye-hand coordination. Eye contact is the ability to fix attention on an object or an individual. Tracking is the ability to follow moving objects from left to right, up to down, etc. Eye-hand coordination is seeing an object and being able to reach for and grasp it with the hand.

Auditory stimulation involves the sense of hearing. It deals with different rhythms, difference in pitch from high to low, and the reaction of the child to various kinds of sound.

Tactile stimulation involves the sense of touch and deals with the concepts of shapes, sizes, hot and cold, rough and smooth, heavy and light, thick and thin, hard and soft, sharp and dull, wet and dry, etc.

CAUTION: When introducing these activities, proceed slowly and gently, being careful not to unduly frighten or upset the child. These activities are designed to be pleasurable experiences.

Bed Play

1. Bounce child on bed by pushing down on the mattress. Gently lift child up and drop to the mattress, increasing the size of the drop.

2. Pull sheet or lightweight blanket over areas of the child's body. Raise up and down or crinkle the sheet to create a flutter sound and breeze sensation.

3. Lay child on pillow and rock him back and forth.

4. Lay child on sheet with ear cocked and encourage him to scratch sheet.

5. Run child's hand over hobnail spread, textured quilt, satin bindings for a variety of sensations. Allow child to lie in various positions to focus eyes on patterned or colored sheets.

6. Tickle child's arms and legs with feather, scarf, or mother's own hair.

7. Put hand (or hide toy) under sheet and have child try to "catch" it.

8. Comb child's hair, running soft brush over cheek, shoulder, etc.

9. Hide edibles (M&M's, dry cereal) under pillow and let child find it without looking.

10. Hang mobile directly overhead or to one side. Either purchase one or make your own by using shapes cut from colored construction paper and attached with yarn or ribbon to foil pie plate. Bells could be added to make sounds.

11. Use small colorful objects such as paper flowers, colored buttons, or shiny spoons, and suspend them from a towel rod or a stiff wire with strung-on ribbon. (Be certain that the mobile is made from objects which can't cut or bruise him and that they are securely fastened).

12. Dangle beads, bracelets (costume jewelry) and bells from a ribbon.

13. As the child begins reaching, put away fragile mobiles and replace with a crib gym. Buy one or make one by tying plastic bangle bracelets, smooth wooden rings, bells, or other small, easy-to-grasp objects to a wide length of elastic and stretch across the crib. (Make sure it is high and taut enough so he won't get tangled up).

14. Tie rattles or rubber squeeze toys to side of bed within the child's reach.

15. A stuffed animal which is musical will help the child associate the animal with sound.

16. When kissing the child, make the kissing noise more pronounced.

17. While talking to the child in bed, imitate the sounds he makes and encourage him to imitate you.

18. When entering the bedroom, knock on the door.

19. Turn the lights on and off to attract the child's attention. Use a flashlight covered with red crepe paper or the sunlight from a window and have the child turn toward the source of light. In the beginning you may even have to turn his head for him.

20. Place colorful objects around the room. Pin birthday cards on colorful curtains and tape posters, large pictures, and birthday cards on bed or nearby wall. Periodically move furniture about the room, keeping the crib in the center area.

Tub and Pool Play

1. Seat child on the edge of the tub or pool and, holding him, allow feet to dangle in the water.

2. Spray warm water gently with hose or bathtub spray (available in hardware and discount stores, which attaches to faucet). Also, pour warm water from cup, sprinkling can, or spray toy over shoulders, down back, to create a trickle sensation.

3. Allow child to play with wet washcloth and sponge. Squeeze soap and allow to slip out of hands.

4. Experiment with bubble bath, "Crazy Foam" (available at supermarket, drug and discount stores), shaving cream, and toothpaste.

5. Submerge the child's body slowly into warm water to create pleasant sensation. Also, try pouring a little cold water over the child's hand, foot, etc. to create sensation.

6. Push Ivory soap or ball under the water and allow it to resurface.

7. Place interesting objects floating and at bottom of tub and allow child to "find" them. (Use colorful toys with variety of textures).

8. Call child's attention to the noise of splashing water. Allow child to be in tub while water is being drawn and let him watch and listen to the spigot.

9. Let child gradually experience the shower at various strengths.

10. Use colorful non-skid decals on the tub or shower.

Kitchen and Feeding Area

1. Peel peach and allow child to squeeze it.

2. Spread oatmeal, pudding, and mashed potatoes on tray.

3. Squeeze jello, marshmallows, grapes, hot dogs.

4. Feed child foods with a variety of temperatures -- cold jello, ice cream, ice cubes; heated soup, mashed potatoes, etc.

5. Spread beans, dry cereal, or rice on tray for exploration. (Caution: watch that these are not jammed into nose, eyes, or ears).

6. Touch sticky lollipop on arms, face, etc. Put marshmallow cream or peanut butter on hands and allow child to clap.

7. Allow child to bang spoon, blocks, and other utensils usually found in "junk" drawers, a treasury of shapes and textures. (Caution: watch for sharp edges, glass, or pointed objects).

8. Let child sit in kitchen while mother is cooking so that he can see and hear pots rattling, water boiling, chopping, and other kitchen noises.

9. Fill plastic containers with gravel, small stones, dried beans, small wooden beads, sand, rice or small macaroni. Be certain that the containers are sealed and taped tightly to prevent opening. Shake for variety of sounds.

10. Have the child watch while you make popcorn. Certain poppers on the market are available with clear dome (also "Jiffy Pop"). He will probably enjoy eating it more after he hears the popping sound.

11. Have child follow the spoon or cup with his eyes as he is fed.

General Household Area Play

1. Let child explore textures on rugs, linoleum or tile, furniture, step treads, etc.

2. Children usually prefer household items, but remember, safety first. Rattles, spoons, pots, bells, blocks, stuffed animals, toy radios, music boxes, rhythm instruments (cymbals, sticks and sandblocks) and toys which are shiny, elastic, squeezable, corrugated, fuzzy, and scratchy are suitable for exploration. Beanbag chairs are very soothing to many children.

3. Games can be played while reaching for these toys over sandpaper surfaces, into sandboxes or pools, into bags, boxes, and under covers.

4. Expand usual experiences by carrying the child around the house, showing him his reflection in the mirror (and other objects) and sitting him in a busy area of the household.

5. Household sounds such as a clock ticking and chiming, a doorbell and phone ringing, sweepers running, buzzers, and even flushing toilets are worth calling to the child's attention.

6. Periodically play the stereo, radio, and TV for pleasure.

7. Read nursery rhymes and short stories using facial and vocal expressions.

8. Fireplaces provide the stimulation of crackling embers and colorful flames.

9. Help the child find and watch his hands by making brightly colored wristbands or make fingerless mittens by cutting off the ends of infant mittens or cutting the toes out of infant socks. Attach bells for auditory help. (Hand watching is the beginning of eye-hand coordination).

10. Hold one of his favorite toys at a short distance from him and let him reach for it. Reward and encourage the child with verbal praise and affection.

11. Use a flashlight, mirror, colored picture, or favorite toy for visual tracking (following). Hold the object in front of the child, saying: "Look, (name) ." Move the object slowly to the child's right (approximately 12 inches), then return. If necessary, gently guide him with your hand under his chin.

12. To give an auditory cue, use a rattle, bell, or coffee can with a stone inside (remember to permanently attach the lid). Shake the object gently to attract the child's attention, then follow tracking procedure.

13. Have the child watch balloons being blown up, popping, and floating.

14. Have the child watch a bouncing or rolling ball. Many activities can be planned around this suggestion.

Outdoor Play

1. Allow the child to crawl on grass, patting and pulling.

2. Permit him to experience the sensations of walking barefoot on warm sidewalk, wet grass, or in mud.

3. Allow the child to lay in, crawl through, and eat snow -- remove gloves momentarily. The child will enjoy hot sun, windy breezes, and summer rains as well.

4. Sensations from scraping rock or spoon over sidewalk and rubbing screening on windows and doors are also pleasurable.

5. Allow child to sit in sandbox and cover his foot or a toy. Make mud pies, sand piles, and snowballs.

6. Allow the child to touch such textured objects as tree bark, pine needles, pine cones, flowers. Also stroke the child with cattails and similar objects.

7. Take the child for a slow walk around the yard and neighborhood, allowing him to touch different objects. Make him aware of differences in weight, color, and shapes.

8. Walk through dry leaves in the fall, allowing the child to hear the crackling sound. Children in wheelchairs can also accomplish this.

9. Call attention to birds singing, insect noises, dogs barking, and other animal sounds.

10. During car rides, call attention to motor and traffic noises.

11. Trips to flower gardens, aviaries, parks with grassy areas, and amusement parks provide vast experiences.

Pre-Speech Activities

There are many pre-speech activities a child must learn to do before speech can come. These activities involve manipulating the areas where speech will develop (tongue, teeth, throat, mouth, etc.). Coordination of such movements as sucking, chewing, licking, blowing, and swallowing are essential to good speech development. Pre-speech activities need only a few materials and a little time, but they are as important as speech itself. All members of the family should participate in helping the child do these activities. These activities can take place at any time and in almost any location.

1. Using a Mirror

   A mirror is an excellent tool to use with many of the following exercises. A small hand mirror is best because it centers the interest on the face. Let the child see himself. He can make faces and mouth movements in the mirror. If the child is in a stationary position for any length of time, occasionally attach or position the mirror for the child so that he can see his face.

2. Manipulating the Mouth

Children can imitate facial movements. Open and close your mouth, and the child can do the same. Purse your lips, smile, show your teeth, and make funny faces that the child can imitate. Manipulate your mouth into various shapes and contortions so the child can attempt to do the same. You can also maneuver the child's lips, tongue and teeth into correct position. Hold the shape for different sound positions. These exercises should be done before a mirror.

3. Vibrations of Face

Place the child's hands on your lips, throat, or sides of the face as you talk and make sounds. Form sounds and words close to his face, so he feels your lips and the vibrations.

4. Tongue Activities

Move your tongue out, in, down, left, right, and around and around and let the child imitate this. The tongue can be stuck out to touch different objects, textures, and foods. These exercises should be also done before a mirror.

5. Licking with the Tongue

Learning to lick is an important part of pre-speech activity and is an offshoot of tongue exercises. A simple way of producing the licking response is to put jelly on the back of a spoon and have the child lick it off. Pudding, honey, whipped cream, lemon sauce and peanut butter may also be used. Salt, lollipops, or ice cubes can be licked too. Even licking the lips with the tongue can be stimulating. Make sure the child uses the tongue only and not his lips.

6. Chewing - Swallowing

Although these are normally associated with feeding, they are also essential for speech development as well. If the child is having trouble swallowing some foods, take the palm of your hand and slowly and gently stroke his neck. Start at the base of the tongue (right under the chin) and work down to the bottom of the throat. It is important to note that, if a child is never introduced to solid food, the mouth area will never develop normally. Gagging is also normal for some children.

7. Sucking Activities

The ability to suck helps strengthen the mouth for speech and gain tongue control. While sucking (as in using a straw), a vacuum is created as one draws the liquid to the back of the mouth. To see if the child has a sucking response, put your finger in his mouth and rub firmly back and forth in the middle of his tongue. The sucking motion occurs naturally in most children. Always use plastic straws because they can be washed out and will not collapse. Always cut the straw into four-inch lengths, because a regular straw is too big for a beginner. If the child cannot suck from the straw alone, do the following: (1) put the straw in the glass, holding your finger over the top of the straw. The liquid goes into the straw and stays there as long as your finger remains on top. (2) remove the straw from the glass, keeping your finger on top, and place the bottom end of the straw into the child's mouth. (3) gently place the straw on the middle of the tongue and draw it up and down until the mouth begins to move in the sucking motion. (4) gradually release the liquid into the child's mouth. (5) repeat the straw feed-

ing until the child demonstrates the ability to suck on his own.

Sometimes a child sucks air and chokes while drinking through a straw. If this difficulty is experienced, cut out a small plastic disc. Make a hole in the middle and put the plastic straw through it. Put the disc in contact with the child's lips. Hopefully the pressure against the lips will help the child close them while he is sucking. Parents should be patient with the child while he is learning this activity. Children should use the straw when drinking any liquids. Even after the child has mastered this skill, continue using the straw to keep the mouth muscles developing. Several commercially-produced cups with permanently attached straws are available. In addition to cups and straws, squeeze bottles are useful for stimulating the sucking relex.

8. Blowing Exercises

Blowing is an important part of speech development which a child should learn after he has mastered sucking. Blowing exercises are essential for developing good breath control. In addition, these exercises help a

child to manipulate his mouth for correct pronunciation and to strengthen his mouth muscles. There are many activities available to teach the child to blow. Blowing into a straw in a pan of water makes bubbles for the child to see. Have the child blow feathers, strips of crepe or tissue paper, ping pong balls or cotton balls. He can blow floatable toys, a pinwheel or a balloon. Interesting games may be built around blowing exercises. Blowing paper boats in the tub during bathtime can be lots of fun. Crawling across the floor while blowing a cotton ball can be transformed into races with other siblings. The commercially-produced bubble pipe is inexpensive and fun to use. Blowing out candles can be an interesting experience done under supervision. After the child has learned to blow out candles, introduce the trick birthday candles that relight after they have been blown out.

Beginning Speech

The "cooing" and "gooing" sound is most likely to be produced by the child during a period of relatively quiet activity. Rocking is a time when you might get this type of vocalization; at this time, he is very

comfortable and familiar with the situation and with you. After a period of socialization such as holding, patting, and gentle handling, he will usually give vocal response to feelings of pleasure.

Talk and play with the child, making any sounds that he can make. Encourage him to make these sounds. He is most likely to do this if you repeat the play and make his sounds to him. Tickle or "rough" play will also stimulate voiced sounds.

Encourage the child to vocalize in his play by holding a toy in front of him and making one of the sounds that he can make. If he responds, repeat the sound as you give the toy to him. Delay giving the toy to him immediately, encouraging him to make a sound before he gets the toy. This procedure may be repeated utilizing verbal praise or food as reinforcement.

While playing music for the child or singing to him, encourage his vocalization. This can be done by making familiar sounds that he can make, playing with a familiar toy, or holding, moving, or patting him. A number of different types of music should be used to find out if the child has a preference. Eventually, he will associate the music with a pleasurable activity and will vocalize in response to the music.

Hold a toy in front of the child and encourage him to look at it while you make a sound that the child can make (if this comes close to the sound the toy makes,

this is fine, but not necessary). If the child makes a sound while playing with the toy, repeat the sound. Noisy toys that give a hum, a beep, or a buzz would be the best to use. If possible, these toys should be left with him for part of the day.

As you feed the child, say words like "eat," "drink," "milk," "water," etc. While doing things for him, refer to yourself as "mama." This is one of the first sounds made. When you are playing with toys or other children, always call them by name.

Give the child objects and name them. Teach the child to associate the object with the word so that he will understand the word without the object being present. When looking at a book with the child, point to the objects and name them. Encourage the child to repeat the words after you and to point to the object himself. During the child's daily routine, use simple and meaningful words to encourage his vocalization. Introduce sounds and words as you work with each thing, such as "spoon" or "cup." When the child is being bathed, splash water and say "water" to him. Give him toys to play with in the tub and name them. When bathing is finished, say "clean" or "all done." Use words with familiar surroundings such as chair, table, and door. (See speech games).

At this point, you can use short sentences in talking to the child. Instead of just saying "shoe,"

say, "here is your shoe." Speak in short sentences, but do not flood the child with long elaborate words. Keep it short and sweet. As the child begins to understand more, you can increase your sentences: "Give me the cup, Billy." "See the bird."

Speech Games

The following is a partial listing of some simple speech games, songs, and finger plays. This is by no means an exhaustive list. Other examples may be found in references listed at the end of this section.

1. Child can answer "yes" or "no."
   Is this a _____? (no)

2. Question and answer.
   Where is the _____? Here is the _____.

3. Omit the last word from a sentence and wait for the response from the child.
   Here is a _____. (child says ba-ba).

   You supply the right word yourself, waiting longer and longer each time. Note: Be sure to reward the child's response, even though it may not be exactly correct.

4. Count your child's teeth (slowly and touch each one).

5. Animal sounds, environment sounds (such as sirens, etc.) can be made by you, then imitated by the child.

6. What's missing? Have two or three objects; remove one. Child should name the missing object.

7. Use the record player, radio, and TV to provide language and music experiences for the child. Note: Vary these experiences frequently, alternating them with other stimulating activities.

8. Picture Books -- page through the book with the child, talking about each picture. For example: "See the cow. The cow says moo." Choose sturdy books with large pictures. Permit the child to manipulate the book with you.

9. Body Parts -- point and touch different parts of the child's body. Have the child find his nose, touch his eyes. Where are his feet? Point to your head.

10. Mirror -- a mirror is a great speech helper. Do body parts in front of a large mirror. Do mouth exercises using a small hand mirror.

11. Puppets -- most children react to puppets. Make them from colorful scraps of material, paper bags, socks, or paper plates, or buy commercially-made puppet. Use the puppet to talk to the child and let him play and talk to it. (Sesame Street puppets are excellent for this).

12. Musical Instruments -- play them with the child and let him experiment with them. Bang a drum; hit sticks; shake bells; play a horn.

Songs and Chants

Sing to the child or play music for him. It doesn't matter if your voice isn't the best. All children love music and singing. Many children can sing back songs before they respond with words.

Some Song Suggestions

Old McDonald Had a _____ (insert child's name)
All Nursery Rhymes
Row, Row, Row Your Boat
Wheels on the Bus
Any TV Commercials the child likes
Hokey-Pokey
Here We Go Round the Mulberry Bush
Did You Ever See a Lassie?
Bye Baby Bunting
Rockabye Baby
Star Light, Star Bright

Tisket-a-Tasket
Good Morning to You
Mary Had a Little Lamb
Any other favorite songs of the family

Finger Play and Body Activities

Help the child with simple movements. Even if he has to be physically manipulated, he will still enjoy the activity.

Pat-a-Cake
Hickory-Dickory-Dock
Peek-a-Boo
This Little Piggy
So Big
Where's _____ (child's name). There he is.
Hide and Seek
Ring Around the Rosie
London Bridge
Twinkle, Twinkle Little Star
Bend and Stretch
Eency Weency Spider

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NOTE: Many other helpful pamphlets for parents of special children are available from the above office (most free or a small charge).

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22. Your Nonlearning Child: His World of Upside Down. Bert Kruger Smith. Boston: Beacon Press, 1968.

III. SOURCES OF SPEECH HELP FOR SPECIAL CHILDREN

1. American Speech and Hearing Society, 9030 Old Georgetown Road, Washington, D. C. 20014

2. Easter Seal Society (in your area)

3. National Association of Hearing and Speech Agencies, 919 18th Street, N. W., Washington, D. C. 20006

4. Pittsburgh Hearing and Speech Society, A United Way Agency, Park Building, 8th Floor, 335 Fifth Avenue, Pittsburgh, Pa.

5. John Tracy Clinic, 806 W. Adams Boulevard, Los Angeles, California 90007 (free materials available)

6. Many local colleges, hospitals, and universities have speech clinics in their speech and education departments

CHAPTER III: SELF-HELP SKILLS

The self-help skills are usually of primary concern to parents. With all children, the responsibility of providing fundamental care and fulfilling the basic needs rests with the parents -- most usually, the mother. As the child grows and matures, he learns to take care of his needs in the areas of feeding, toileting, dressing, bathing, oral and nasal hygiene, and grooming. Usually by the age of five, most children will have acquired reasonable proficiency in these areas.

The severely involved child, depending on the nature of the disability, will learn these skills at a much slower rate. In some cases, acquisition of self-help skills may never be accomplished. In these cases, complete care of the child rests solely with the parent. When total disability is present, there are some things that the child can be taught to do for himself. Regardless of the degree of involvement, parents and others who care for children should make every attempt to assist the child to his own level of independence.

The suggestions set forth in this section on self-help skills are meant to be used as guides when working on these areas with children. Under no circumstances

should they be considered infallible. Naturally any adult, whether performing these duties for the child or teaching the child to care for himself, will need to use discretion in choosing the suggestions which best fit the situation.

FEEDING

Mealtimes are the most relaxing, rewarding, and stimulating times in the child's whole day. They are filled with pleasurable experiences and sensations which children learn to anticipate as highlights. In this respect, especially, the severely involved child is no different. He likes to eat. Food satisfies him and is reinforcing in itself.

In learning to feed himself, the non-handicapped child progresses through a series of stages. Each stage or step prepares him for the next one. Each step must be accomplished before the following one can be attempted. Again, the severely involved youngster is no different. He, too, will follow the same organizational pattern of learning to feed himself; however, he will probably remain at each level of the feeding process for a longer period of time. "It is important for him to have a chance to do things when he is ready. Encourage him, but don't force him. Forcing may do no good, so be gentle in act and speech as you try to feed your handicapped child." (Public Health Service Publication #2091-1967).

Prerequisites for Self Feeding

There are several things that a child must be able to do before he can learn to feed himself. The child must be able to swallow, suck, chew and grasp.

Sucking

Many times children are unable to suck adequately. To improve the sucking reflex, utilize a large, soft nipple with an enlarged opening. This will enable the child to "chew" the liquid from the container. Choose liquids that appeal to the child. In addition, using a plastic straw (as described in pre-speech activities under Communication, pages 28-29) is also helpful in teaching the child to suck.

Swallowing

Learning to swallow progresses concurrently with learning to suck. The child should learn to suck the food from the spoon rather than have it scraped off the utensil into his mouth. If the child is having difficulty swallowing, the following suggestions might be helpful:

1. Stroking the throat from the chin to the chest tells the child to swallow.
2. Place food toward the back of the mouth to aid in swallowing.

3. Thin the food slightly with milk or juice.

4. Do not feed the child too much or too quickly.

5. Often, broken pieces of bread, crackers or cereal may be used to thicken soupy foods.

6. Foods prepared for other family members will add a welcome variety to the daily diet. If necessary, these foods may be crushed or pureed in a blender.

7. Additional solid foods, such as ripe bananas, canned peaches, or pears can also be included in the child's meals.

(Ibid, PHS 2091-1967)

Chewing

Chewing may be difficult if the child does not have all of his teeth, or if his teeth do not meet properly. In cases where the ability to chew is impaired, food such as cooked cereal, well-cooked vegetables, fruits, and mashed or strained fruits, or soft meat loaf are recommended.

The child may be encouraged to chew on small pieces of cooked potato, soft, well-cooked meat, or diced, cooked vegetables. As the child develops facility with these, gradually introduce larger and tougher foods such as raw, sliced apples and carrots, stewed meat, or zwieback toast. These foods should be served with a teaspoon or two of milk, water, or juice

between bites to aid in swallowing (Ibid, PHS #2091-1967).

Position for Feeding

Since all retarded and handicapped children are different, the way the child is positioned for feeding may differ from the way other children with similar handicaps are treated. If possible, position the child at a table. If needed, use pillows to prop him up.

If the child must be fed lying down, try to raise his head and upper trunk forward. When feeding a child with a spoon, do not tilt his head back too far. This makes it almost impossible for him to swallow (Finnie, 1970).

Self-Feeding

A child is ready to begin self-feeding when he has control over his hands and head movements and has achieved some facility in spontaneous chewing and swallowing.

Finger-Feeding

1. Place the child in the best position to facilitate use of arms and hands.
2. Begin finger feeding using firm substances such as pieces of crackers or cookies. Place these, one piece at a time, in front of the child.
3. Assist the child to grasp the food; using thumb, pointer, and middle fingers.

4. Guide the food to the child's mouth, telling the child to chew and, if necessary, move his jaw up and down.

5. Repeat this activity until the child is able to pick up the food by himself. Encourage each small success with praise.

   NOTE: Have the child use the same hand each time, keeping the opposite hand on his lap.

6. When the child is able to self-feed firmer substances, begin with bits of sandwiches, cake, and other foods that are softer in consistency. Eating these foods will require much practice until the child learns not to crumble the food with too much pressure.

Sandwich Feeding

1. Begin by using a sandwich made from a sandwich spread, peanut butter or other spreads of similar consistency which will help to keep the sandwich together.

2. Cut the sandwich into four pieces and place them, one at a time, in front of the child. At first, the child may need help in developing the proper grasp for the sandwich or in getting the sandwich to his mouth.

3. When the child has the sandwich to his mouth, tell him to bite, and assist him in taking a small bite of the sandwich. Watch closely to see that the child does not try to place the whole sandwich into his mouth, but takes small bites from it. This may require holding the child's hand as he takes the bites, until he understands what is expected of him.

4. Encourage the child with praise.

Spoon Feeding

After the child has mastered the basic skills associated with finger feeding and sandwich feeding, he is ready to learn the use of a spoon. For a child at this stage of development, especially if he is having some difficulty with hand control, a special spoon might be in order. Also, foods that will stick to his spoon, such as applesauce, mashed potatoes, cooked cereal and peanut butter, would be most useful for practice.

In the initial stage, spoonfeeding requires that the child has assistance in holding the spoon and moving it from dish to his mouth.

1. Place the spoon in the child's hand, showing him how to grasp it.
2. Manipulate the spoon, holding the child's hand. Guide the hand from bowl to mouth.
3. Gradually reduce the pressure on the hand while guiding the spoon to the child's mouth by holding his elbow.
4. Finally, remove your hand altogether, allowing the child to use the spoon by himself. See that the child removes the food from the spoon with his lips and not his teeth.

Often, a child may develop the problem of pushing food out of his mouth with his tongue.

To remedy this situation, place the food in the side of the mouth, using a plastic-covered metal spoon. Guide the jaw with the other hand.

In most cases, when severely involved children are learning to handle spoons for self-feeding, they encounter some difficulty in successfully manipulating the standard teaspoons and tablespoons. Special kinds of spoons are commercially produced which will meet the child's needs. In addition, there are many adaptations of the typical spoon which are also available. Pictures and descriptions of special spoons may be found in the following books: Feeding the Child with a Handicap and Handling the Young Cerebral Palsied Child at Home (complete references will be found in the bibliography at the end of this section).

Liquids

After the child has mastered the basic skills associated with the sucking reflex, it is time to begin teaching him how to drink from a cup. Depending on the complexity of the child's involvement, it may be necessary to employ a commercially available training cup to ease the child through the transition from sucking to drinking. The training cup, however, merely drops the liquid to

the back of the throat, requiring little oral control on the part of the child. These special cups, therefore, should be used only to initiate the drinking skill. As soon as possible, try using a plastic cup. Cut one section so that the rim does not touch the child's nose. By putting a small amount of liquid in the cup, the flow may be controlled effectively, and the action of the tongue and lips can be observed. If necessary, manipulate the jaw as mentioned in spoon feeding.

Other special equipment is available to help the child learn to eat. The lists of books presented in the bibliography contain diagrams and instructions on how you can make or buy these items.

The child's doctor, the school speech therapist, his teacher, or physical therapist may also give you other hints or suggestions on feeding the child.

TOILET TRAINING

It takes an investment of energy, time, and patience to toilet train a retarded child; but his and your hard-won accomplishment will be worth the investment. It is natural for you to be anxious, whether this is the first time you have attempted to teach the

child or whether you have tried before without success. The following are some tips or suggestions you might find helpful towards obtaining "successful toileting."

1. Don't underrate the child's ability to learn, but don't overrate it unrealistically. Set goals for him that he can accomplish. Help the child to help himself.

2. Don't infantilize or overprotect him. Don't be afraid of setting limits. The child needs the security of parental guidance. Many books on child rearing practices emphasize that the child must be ready for toilet training. Although this is an important factor, more stress should be placed on the mother's being emotionally ready to initiate the training.

3. You may not be aware that you are showing displeasure through facial or other cues that the child will readily pick up.

4. The child, too, must be ready to be trained. The age at which such a process should begin varies from child to child. The child may tell you when he is ready. Again, a few pointers -- Are the child's bowel movements or wetting patterns regular? Determine this by making a record of his performances for a week. Does he indicate discomfort from soiled diapers? When you have decided that you, as a parent, are ready to begin, be prepared to work <u>systematically</u> -- stopping, starting, and skipping a few days because you are too busy or because something else comes up will only frustrate you and the child.

5. Praise and reward the child for any signs of successful effort during the training. Some children love candy, cookies, marshmallows, potato chips or raisins. Others prefer a hug, kiss,

a song or a game such as clapping hands. If the reward you have chosen for the child doesn't prove effective, try something else he wants more than what you are using.

6. Have the reward readily available.

7. Try to feed him meals at the same time each day.

8. Help the child stay dry through the night; avoid giving him liquids after supper.

9. If you think the child has to use the bathroom, take him as soon as possible but do not rush him -- rushing the child may frighten him and make him too tense.

Toilet Training Checklist	Yes	No
1. Are you emotionally ready?	_____	_____
2. Are you ready to invest some of your time each day?	_____	_____
3. Is the child willing to sit on the toilet?	_____	_____
4. Are you giving the child meals at regular times?	_____	_____
5. Have you made a record of the times your child seems to void each day?	_____	_____
6. Is the child dressed in easy-to-remove clothes?	_____	_____
7. Do you have a toilet seat on which the child can be comfortable?	_____	_____
8. Do you know what reward the child loves?	_____	_____
9. Are you prepared to give him the reward as soon as he voids?	_____	_____

	Yes	No
10. Have you alerted anyone else who handles the child about the toilet training procedures?	_____	_____

"If you answered questions 1 through 10 YES, you are ready to begin" (Ibid).

Beginning the Toileting Training Procedure

As you start the training, jot down the procedure step by step. This will act mainly as a guide for you. It is important that you be consistent in your daily routine. Also, it might be a good idea to post such a routine somewhere in the bathroom so that anyone else toileting the child will follow your routine step by step.

If the child needs a child's toilet seat for comfort, use one with feet and armrests that can be placed directly over the regular seat of the toilet. If you find it necessary to use a potty chair, place it in the bathroom. Do not use it in any other room unless the child is non-ambulatory or so involved that taking him to the bathroom would only cause more confusion for the child as well as extra work for you. Again it is best to keep the potty chair in the bathroom; however, you will be better able to cope with the training if you don't have to run the stairs everytime.

Dress the child in clothes that are simple to remove. Don't use clothing that is difficult to take on and off, such as overalls. Have him wear pants with elastic waistbands that can be pulled down and up easily.

Use training pants instead of diapers. The discomfort of soiled pants may help the child to understand that he is supposed to try and keep dry and clean.

Undress the child only in the bathroom. Do not dress the child or undress him while he is sitting on the toilet. Do not distract him with toys. Make him concentrate on why he is in the bathroom.

Time for Toileting

Before any set schedule can be established, it would be beneficial for both you and the child if, for the first week, you observe the child and keep a record of the times he voids during the day. When you have some idea as to when he goes and can determine if there appears to be some pattern, it will make your job a little easier.

Some suggested times that you can attempt to toilet your child, if there seems to be no set pattern, are:

-- when he first gets up
-- before meals or after meals
-- mid-morning
-- at bedtime
-- before you retire

Try to detect his needs in advance -- watch his face and listen for particular or peculiar sounds.

If the child doesn't void within five minutes, remove him from the toilet, even though you feel a few minutes more would produce some success. Caution: Long

periods of time seated on the toilet may cause hemorrhoids, rectal bleeding, or circulatory problems in the legs and feet.

TUB BATHING

When bathing an ambulatory or partially ambulatory child who has no significant paralysis of the arms, the parent should constantly be aware of allowing the child to become as independent as possible. Therefore, the following procedures have been listed in order to aid parents in bathing their retarded children, while simultaneously teaching them how to care for their bodies. Where possible, assist the child to become independent in the bathing process by allowing him to do as much for himself as he can.

1. Assist the child to the bathing area. Hold one or both of the child's hands. If this doesn't allow enough support, or if the child is only partially ambulatory, support his body weight by drawing one of his arms around your neck and holding it with your hand. Place your other arm around his waist.

2. Acquaint the child with the temperature of the bath water. This may be done by placing his hand in the bath water or into a cup containing the bath water. Watch for the child's immediate reaction and facial expression, in order to determine whether or not the water is at a satisfactory temperature.

3. Assist the child to the tub, allowing him to sit on the side, with his feet dangling into the water. It will be necessary to provide support.

4. Lower the child gently into the bath water, holding him under his armpits. The water should not be any higher than the child's waist. Support the child upward by utilizing a well-padded, but firm bathing seat. Allow the child to get used to the water temperature. Make bathing a pleasant experience.

5. Washing the arms -- (a) lather the facecloth with soap; (b) rub cloth slowly up and down the child's arms; (c) change washcloth to opposite hand; (d) cleanse opposite arm in the same fashion.

6. Washing the trunk and genitals -- (a) assist child in holding washcloth; (b) rub cloth in a circular fashion over trunk of the body; (c) proceed to cleanse genitals in the same manner; (d) remember to rub gently when cleansing these areas.

7. Washing the legs -- (a) cleanse one leg by stroking it gently up and down; (b) change washcloth to other hand; (c) proceed to cleanse other leg.

8. Washing the feet -- (a) bend leg at the knee; (b) rub washcloth up and down the bottom and top of the foot and between the toes; (c) wash other foot in the same manner.

9. Washing the face, neck, and ears -- (a) wring out washcloth to avoid excess soap getting into the child's eyes, ears, nose and mouth; (b) cleanse forehead, neck and face areas by rubbing washcloth gently in a circular motion; (c) do not rub around the eyes for too long a period of time; (d) remember to let the child be as independent as possible.

10. Washing the back and buttocks -- (a) use a soft bristle backbrush or soft washcloth; (b) have child stand up or kneel in tub; (c) assist child to hold backbrush; rub the brush upwards and downwards over the back areas.

11. Washing the hair and scalp -- (a) use a full-lather shampoo, preferably one that doesn't burn the eyes; (b) wet the hair and scalp thoroughly and apply an appropriate amount of shampoo; (c) massage the hair and scalp vigorously in a circular fashion until a lather is obtained; (d) remember to keep the lather bubbles away from the eyes, mouth, and other sensitive areas of the face; (e) rinse the shampoo off the head by either using a shower hose or by pouring amounts of water over the hair from a pitcher or some other container (if using a shower hose, remember not to let the force of the water be too powerful).

12. Completing the bathing procedures and leaving the tub -- (a) carefully rinse the entire body with clear water; (b) gently pat dry each area of the body. Be careful that the child doesn't develop a chill while remaining in the tub; (c) place the child in a sitting position on the side of the tub and dry his legs, feet, genitals, trunk, and back areas. Remember to pat dry. (d) placing your arms under his armpits, or using whatever manner is most comfortable for you and the child, assist him out of the tub and support him in a standing position by a wall or sink or seat him on a stool, chair, or closed toilet seat.

SHOWER BATHING

An alternative to tub bathing the severely involved, partially ambulatory child is the shower stall. If you wish to bathe the child using a shower stall, the following list of suggestions should be considered:

1. Cover the floor of the stall with an abrasive material to prevent the danger of slipping. These are available in most hardware stores and plumbing supply outlets.

2. Be certain that the force of the water is not too powerful and that the temperature is favorable.

3. Bars should be permanently installed in the shower stall to provide supporting devices for the child.

4. A chair that has been secured to the floor of the stall will provide adequate support for the child while washing and rinsing. Newer shower stalls are currently available with a shower seat built in.

BATHING AT THE SINK

The following procedures are designed to assist parents in helping their severely involved children to bathe at the sink. All of these activities will initially have to be done by the parent for the child. Gradually, through repetition, however, the child will be capable of mastering the basic skills necessary to perform most of the activities by himself.

1. Drain Stopper -- filling the sink with water requires the child to either place the stopper in the sink or to push and pull a knob which controls the drain stopper. These actions can be taught through the use of form boards and a spinning top:

   (a) Form Board -- should consist of discs about the size of a drain stopper, each with a small ring handle on top. Have child practice placing the disc in the form and removing it.

   (b) Spinning Top -- will aid in promoting the pushing and pulling motion necessary for opening and closing the stopper.

2. Filling the Sink -- To keep child from overfilling the sink:

   (a) tape a piece of tape around the inside of the sink at the proper level.

   (b) practice with the child filling the sink to this point.

3. Adjusting the Hot and Cold Faucets to a suitable temperature:

   (a) Place tape on each water faucet; one piece on hot, one piece on cold. Pieces of tape are then placed on the sink in positions to line up with the tape on the faucets.

   (b) Child then has to line up the piece of tape on the handle of the water faucet to the piece of tape placed below on the sink. Eventually the child will learn that matching the two pieces of tape correctly will produce water of even temperature.

4. Identifying materials:

   (a) Show materials first and say each word: towel, soap, washcloth.

   (b) Show child how to use them. The child will watch and then imitate this process. Repetition is important.

5. Handling Soap -- if the child experiences difficulty in handling a bar of soap, block play can be beneficial. The blocks should be the size of a bar of soap. The motion of rubbing the hands with the soap in order to lather should be stressed.

6. Washing the Face -- repeated practice before a mirror will help.

   (a) Wet washcloth and soap it.

   (b) Wring out excess soap and water from washcloth.

   (c) Rub cloth all over face, being careful of eyes.

   (d) Rinse washcloth and wipe soap off face.

   (e) Rinse washcloth again, wring it out and hang up to dry.

   (f) Gradually give the child less help until he is able to use the washcloth properly.

(g) Dry face with towel, letting the child hold the towel and directing him in drying his face. Gradually give the child less help until he is able to use the towel.

7. Washing Hands with Soap -- repeated practice in front of mirror will help.

   (a) Turn water on - wet hands.

   (b) Lather hands with soap and rub them together briskly.

   (c) Rinse soap off hands.

   (d) Turn water off.

   (e) Dry hands with towel, allowing the child to hold the towel and directing him in the drying process. Gradually give the child less help until he is able to use the towel.

PERSONAL GROOMING

1. Activities for Brushing Hair:

   (a) Have a grooming table for the child on which would be placed a comb, brush and mirror.

   (b) Position the child in front of the mirror and support if necessary.

   (c) Show the child the brush and say the word. Demonstrate the use of the hairbrush.

   (d) Assist the child in taking the hairbrush from the grooming table and holding it by the handle. Tape the handle of the brush to facilitate grasp.

   (e) Gradually the child will grasp the brush and brush his own hair. The parent should point out the side of the head, the back of the head, and the top of the head. At first, the child might need assistance in directing the brush over his hair.

(f) After the child has brushed his hair, he should be encouraged to replace the brush on the grooming table.

(g) Viewing himself in the mirror will enhance his self-concept.

(h) As a follow-up activity, encourage the child to brush someone else's hair -- the parent, the teacher, another child.

ORAL HYGIENE

The ability to brush one's teeth requires the development and refinement of gross and fine motor skills involving hand and arm movements and sufficient coordination to manipulate the toothbrush. The degree of the child's disability will determine to a great extent the level of proficiency that he will attain. Because toothbrushing is a complex skill which involves such a refined degree of coordination, a more severely disabled child might never be capable of achieving any great degree of independence in this area. The following are suggested activities for teaching the technique of brushing teeth:

1. Activity I

   (a) After the child is seated in front of a mirror, hand him his toothbrush.

   (b) Apply toothpaste to the brush while the child is holding it. If the child has difficulty grasping the toothbrush, wrap adhesive tape around the handle.

   (c) Place your hand over the child's and help him guide the toothbrush into his mouth.

(d) Repeating the words "up" and "down," move the brush up and down over the teeth.

(e) The procedure is completed when all the teeth have been brushed.

(f) When the child begins to move the brush correctly without assistance, move your hand down to his wrist, then to his forearm, and finally releasing the child to brush his teeth himself.

2. Activity II

(a) Begin with child identifying his own toothbrush, toothpaste, and cup.

(b) Obtain toothbrush and toothpaste.

(c) Squeeze toothpaste onto brush. This can either be done by the child or the parent.

(d) At first, guide the child. As he makes progress, this guidance can be withdrawn.

3. Activity III

(a) Stand behind the child.

(b) Brush the youngster's teeth yourself -- stressing brushing down from the top teeth and up from the bottom teeth. Also stress brushing across the tops of the teeth.

(c) After the child is familiar with having his teeth brushed, place brush in his hand, and holding your hand over his, direct him in the correct procedure.

(d) Let the child brush his teeth as much as he is able, giving assistance only when absolutely necessary.

NASAL HYGIENE

Proper nasal hygiene is difficult to teach and is sometimes best learned through imitation. The following suggestions might prove beneficial:

1. Keep a box of kleenex within easy access of the child.
2. Demonstrate use of kleenex to the child by taking a deep breath and blowing your own nose.
3. Tell the child to take a deep breath. Then, place a kleenex over his nose while holding his mouth closed.
4. Tell the child to blow through his nose.
5. Assist the child in wiping his nose and throwing away the soiled tissue.

DRESSING AND UNDRESSING

The ability to dress and undress oneself automatically implies that a certain level of physical and intellectual development has been reached. The degree of the child's involvement will determine the amount of parental assistance necessary and the level of proficiency that the child will attain. The undressing and dressing activities outlined below assume that the child has acquired sufficient motor control to carry out these suggestions. The degree of success which a child will achieve is dependent upon his ability to effectively use his hands. Because cerebral palsy and other similar disabilities limit the child, he may be forced to dress and undress himself using only his lead hand. His involved hand may not be functional for these purposes.

Techniques for Shirt-Like Articles of Clothing:

Button-down and Pull-over shirts and sweaters
T-shirts and blouses
Coats and Jackets
Some slips and dresses
Brassieres

Undressing Activities

1. Ducking the head

   (a) child reaches to the back of the neck opening with one or both hands.

   (b) child ducks head and pulls neck opening forward over his head.

   (c) the lead hand grasps the edge of the opposite sleeve and pulls the sleeve off of the arm.

   (d) the involved hand then pulls the sleeve off the lead arm or the child shakes the sleeve off.

2. Arms out first

   (a) for short sleeves: the lead hand grasps the edge of the opposite sleeve and pulls it forward over the elbow, as the involved arm pulls back through the armhole.

   (b) for long sleeves: the child raises his involved arm to shoulder level and flexes his elbow. The lead hand then grasps the underarm of the sleeve and pulls it down and forward, while the involved arm pulls back and out.

   (c) child then takes his head out by pulling the neck opening forward and over his head.

3. Ducking the head (modified form)

   (a) child leans forward, ducks his head, grasps his garment at the back of the neck with both hands and pulls it forward over his head.

(b) child then pulls the garment, which is now in front of him, off of both arms.

4. Arms in front

(a) child pulls his garment off his lead shoulder, the involved hand pulls the opposite sleeve down or forward, while the lead arm then wiggles out.

(b) lead hand then pulls the entire garment around the front and takes the sleeve off of the involved arm, removing the garment over the head (suitable for sweatshirts and bulky garments only).

5. Arms in back

(a) child puts both hands behind his back.

(b) pulls the sleeve off the involved arm with the lead hand.

(c) brings arms forward and removes the sleeve from the lead arm.

Dressing Activities

1. Ducking the head

(a) child grasps the back bottom of the garment, ducks his head forward, and pulls the garment over his head.

(b) the child's lead hand then holds the bottom open wide, while the involved hand pushes through the armhole.

(c) repeat this procedure for the lead arm.

2. Arms in first

(a) child's garment is laid flat on his lap or on a table, with the front side down.

(b) child opens the back bottom of the garment with his lead hand and then pushes his involved arm into the sleeve.

(c) the lead hand then pushes the sleeve up past the elbow of the involved arm.

(d) repeat the above procedure for the lead arm.

(e) lead hand firmly grasps the back of the garment and then pulls it over his head.

(f) child then finishes by pulling down the garment all around himself.

3. Flipping over

(a) child has his garment laying flat on his lap or on a table, with the collar near his body and the lining showing.

(b) he then pushes both arms into the sleeves or else pushes the involved arm first and the lead arm second.

(c) child then ducks his head forward while raising his extended arms over his head.

(d) child then finishes by shrugging his shoulders and pulling the garment down.

4. Pulling from front

(a) child pulls the sleeve over his involved arm.

(b) lead hand grasps the opposite shoulder and pulls the garment over his head to the other shoulder and gives it to the involved hand to hold.

(c) child then finds the armhole with his lead hand and pushes the arm into the sleeve.

Techniques for Pant-Like Articles of Clothing:

Pants and skirts
Some dresses and slips
Short, panties, trousers, girdles, panty-hose
Bathing suits

Undressing Activities

1. Lying down

   (a) child pulls the garment down over the buttocks.

   (b) child rolls from side to side, pushing garment further down.

   (c) child wiggles the body out of the garment.

   (d) child then kicks the garment off of the feet.

2. Sitting up (mat)

   (a) child pushes his garment forward and wiggles his body back and out.

   (b) child then bends his knees close to his body and pulls garment off by the cuffs or hem.

3. Kneeling

   (a) child pulls garment down over his hips and buttocks.

   (b) child then sits and finishes as in the sitting position.

4. Standing

   (a) child holds onto a piece of stable furniture with one arm.

   (b) child then pushes his garment down past his knees with one or both hands as far as he can; and, sitting down, finishes removal over the feet.

Dressing Activities

1. Lying down -

   (a) child puts both feet, or one foot at a time, into the garment and, rolling from side to side, pulls the garment up.

   (b) child could also wiggle forward into the garment by a series of arching

movements, while pulling up with both hands.

2. Sitting (mat)

   (a) when putting on a skirt, the child holds the garment open and puts both feet in. For trousers, however, the child crosses his involved leg over the opposite knee and puts pant legs on.

   (b) child repeats the above procedure for the dominant leg.

   (c) child then pulls the garment up past his knees and pulls it on the rest of the way by wiggling his body forward into it, or by rolling from side to side.

3. Kneeling

   (a) child starts putting on the garment just as in the above sitting position, and pulls it up past his knees.

   (b) the child then gets into a kneeling position and pulls the garment up past his buttocks with one or both hands.

4. Standing

   (a) child starts putting on the garment as he would in the sitting position (chair).

   (b) child then holds onto a piece of furniture with one hand, and pulls the garment upwards with his other hand.

   (c) child could also lean against a wall or some other kind of stabilizing object and use both hands to pull the garment upwards.

Techniques for Shoes, Socks, Stockings, Boots, Rubbers and Galoshes

Undressing Techniques

1. Rubbing (shoes)

(a) child raises toe and rubs the back of his shoe off against the mat or footstool or the toe of his other shoe.

2. Pushing-Pulling

(a) with one foot resting on his opposite knee, the child pulls the toe of his shoe up with one hand, while he pulls the heel down with the other hand.

3. Rubbing (socks)

(a) child pushes and rolls the sock down as far as possible, using either one or two hands, or by rubbing it against a mat.

(b) child then grasps the toe of the sock and pulls it off.

Dressing Techniques

1. Folding in half (socks)

(a) the upper part of the sock is folded back at the heel so that it looks like a scuff slipper.

(b) child then grasps both sides of the folded sock, puts his toes in, and pulls the sock over his foot.

(c) child finishes by grasping the cuff of the sock, and pulls it up over his heel and up his leg.

2. Boxing (shoes)

(a) the shoe is placed in a box in front of the child, or against a wall or piece of furniture.

(b) child then points his toes into the shoe.

(c) child finishes by pushing his foot forward and down into the shoe.

3. Shoe horn

   (a) child inserts shoe horn in the back of his shoe.

   (b) child puts his toes into the shoe, and pushes down and forward with the foot, as he gently removes the shoe horn.

   (c) this activity is especially useful with high shoes.

4. Full Body

   (a) child rests one foot on the opposite knee, or simply lifts his one foot upward.

   (b) he then holds the shoe open in front of him, including the tongue of the shoe.

   (c) child then finishes by pointing his toes toward the shoe, and pushing them into it, while the other hand pushes the bottom of the shoe upwards.

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CHAPTER IV: PHYSICAL ACTIVITIES

Parents of the severely involved child notice very early that their youngster's motor development is very slow. The child cannot or will not utilize natural physical movements. Slow motor development is often the first clue that the baby is not progressing normally. For example, the child is eight months old and is still not holding up his head with good control, while other children often master this simple skill much earlier in life.

Because of the child's handicaps, the initial responsibility of assisting him in developing basic body movements falls upon the parent. The following activities are easy and practical and require little special equipment. Most of them require little extra time and can be done during daily play and interaction with the child. These exercises can be helpful in developing muscles, providing sensations and a good self-image, and helping the child to explore his environment.

The materials included on physical activities and games are of a general nature. They will probably have to be adapted to meet the child's individual needs. It is advisable to check with the family physician or a physical therapist before performing these exercises with the youngster. These professionals also are excellent sources for additional activities.

This section on physical activities is broken down into areas of basic body parts merely as a matter of convenience. Included at the end of this section is a brief bibliography and some basic First Aid measures.

LIST OF TERMS

A. Passive Exercises

In some cases the child may not be able to move his body on his own; and, in order to do the exercises, his body will have to be moved for him. These are passive exercises. If the child's limbs are still, they will have to be moved as far as his muscles permit. In some cases, a child's muscles are tight due to inactivity and no longer stretch as far as they should. In these cases, please consult the family doctor before attemping any of the exercises. The exercises suggested may be beneficial in preventing any further tightening or deterioration and possibly increase the child's range of movement. In addition, there is the child who is very lethargic and does not move his arms or legs at all. In this case, it is also necessary to move the child through the exercises.

(b) place child in front of television so that he looks up to see source of sound.

(c) place the child on floor facing the rest of the family.

(d) rolled pillows can be replaced by wedge pillows if the child will remain still.

(e) the more support the child's head receives, the less he will use it on his own, so occasionally try some exercises without the aid of a pillow.

2. Place the child in a corner situation where he is unable to put his head back. Prop him so that he doesn't fall forward or to either side. Pillows or sandbags can be used behind his back, on each side of him, and in front to prevent falling. Only use as many pillows as is necessary with the child to encourage him to use his muscles and not become too dependent on the pillows.

(a) sit child in the corner of a room facing out.

(b) sit child in the corner of his crib.

(c) place the child in the corner of an armchair or couch.

(d) while the child is sitting, call his name; ask him to reach for a toy, a piece of food, or anything he really likes.

(e) as he reaches for the object, at first let him grab it right away, then move it further from his reach so he must look up to see the object, then grab it.

(f) have the child sitting in a part of the house where there is activity going on.

(g) while the child is sitting, touch one side of his head; child should turn in that direction.

3. If the child is able to sit at all, this is also an excellent time to work on head and neck control. As he sits, call his name and tell him to look at you, or hold one of his favorite toys just out of his reach and high enough that he must look up to reach it.

   (a) while feeding, have the child look up before getting food. This also helps the child to swallow because he can swallow better when his head is held erect.

   (b) to increase movement of the head, move a toy back and forth in front of the child and have him follow it with his eyes from side to side.

4. Place the child on a scooter board with his chest resting on the board. Hold onto his feet and slowly turn him in a circle, talking to him at the same time.

5. Child lies on his stomach on a flat surface and raises his head off the ground. If he is able, legs and arms should be lifted at the same time, and the child should be rocked back and forth like a rocking horse.

6. Passive exercises for neck strength (child lying flat on the floor or sitting erect -- could be in a chair or highchair):

   (a) place your hands on either side of the child's head behind his ears.

   (b) turn the child's head from side to side as far as physically possible without causing the child discomfort. This can be done for a few minutes at a time, five to ten times a day. It is important to start this gradually so the child's muscles don't become sore.

   (c) with your hands in the same position, push the child's chin to his chest and then back in the opposite direction until his chin is up in the air (start gradually as indicated in the above exercise).

   (d) with your hands in the same position, turn the child's head so his ear moves down to his shoulder and then repeat to the other side.

(e) if the child is able, it would be more beneficial for him to do the exercises on his own.

7. Place the child flat on his stomach and hold onto his hands, lifting them gently up in the air. This will encourage him to raise his head.

8. Sit-up exercises -- have the child flat on the floor or bed, pull his arms until he is sitting erect, and call his name.

9. Cage-ball exercises -- position the child on his stomach on the cage ball. Gently rock the ball from side to side or in a circular motion. This soothing rocking motion helps the child to relax his entire body. It also encourages the child to bring his head up as you rock the ball forward.

DEVELOPMENT OF ARM AND HAND STRENGTH AND CONTROL

It is especially important to keep a child's arms and hands from becoming still and immobile. They may be the child's only means of interaction with his environment. The child needs to be able to use them to their fullest capacity in order to feed himself, dress, or even to play with a toy independently. The use of his arms can lead to progress in other areas such as self-care. Even if the child has a physical handicap that involves his arms or hands, the following exercises and hints may prevent any further stiffening or problems.

Suggested Exercises for Arms and Hands

1. Passive range of motion -- moving the child's arm in all directions as far as is physically possible. In addition to moving the whole arm, it includes extending his arm as far as

it will go. In some cases, the child will not be able to extend his arm to 180° due to tight muscles, so move his arm as far as is comfortable for the child.

(a) move child's arm up over his head and then down along his side.

(b) move the child's arm from right to left across his body as far as he can reach and then back in the opposite direction.

(c) move the child's arm from elbow to hand to prevent the muscles of the elbow from tightening.

(d) common sense is a good guide in this area. Move the child's arm as many different ways as you move your own. It sometimes helps to move your own arm in the direction you want to move the child's. This will give you an idea of how far you should go.

(e) if the child becomes tense, a soft massaging of the muscle may help to relax him.

(f) these exercises should also be done for short periods of time, five to ten times a day.

(g) a good time of the day for these exercises would be while dressing or undressing the child, or during his bath.

(h) you could also do them while playing with the child, making it a game; eventually having the child reach for a toy or for you on his own.

2. Sit-ups -- have the child lying flat and take hold of his hands and have him pull himself up to a sitting position.

3. Tug-o'-War -- play tug-o'-war with the child, using a diaper or towel.

4. Encourage the child to reach for and grasp objects on his own.

5. For hand control and grasping:

   (a) have the child squeeze play dough or another soft substance in his hand.

   (b) if the child's hand is very stiff, manipulate the play dough in the child's hand to relax him.

6. For strengthening the fingers, have the child squeeze a ball, starting with a small ball and working up to a large one.

DEVELOPMENT OF LEG CONTROL

The development of leg control is a prerequisite for standing and eventually walking. If the child's legs are physically handicapped, you can still use these helpful hints to keep his legs from becoming stiff and immobile.

Suggested Exercises for Leg Control

1. Kick board -- a kick board is suspended in air so that the child can lie on the floor in front of it and push at it with his legs. This can be done one leg at a time or both legs together. Singing a rhyme while the child is doing this will help develop a rhythm and make it more fun for the child.

2. Have the child lie on the floor on his stomach. Have him raise one leg at a time off the floor. This can be done by tapping the child's leg and asking him to lift it.

3. Bicycle -- placing the child on an exercycle or stationary bicycle and having him pedal will help develop leg muscles.

4. Bring child from crouching to standing position and then repeat this up to ten times.

5. Have child sitting across the roll pillow. Hold him by his thighs and gradually roll him backwards. He will use his leg muscles to try and regain his balance.

6. Relaxing the legs -- child should be lying on his back. Support his legs behind the knees and gently move them up and down.

TRUNK EXERCISES

If a child is ever to learn to sit, his trunk muscles should be strong and well developed. When considering the trunk of the body, remember that it is not merely a major body part. Rather, it is a mass of small body parts working together in one major body area. In order to provide for normal trunk development, the back, abdominal, and pelvic muscles must have matured and be working together in the trunk region. This section on trunk development has been arranged so that the exercises will deal with small areas within the body. Bathtime is an excellent time of the day to perform these activities.

1. Abdominal Movements

   (a) Place the child flat on his back. With your finger, trace a series of straight lines across his stomach. Make this similar to a tickling motion. You will be able to feel his abdominal muscles tightening.

   (b) Using your entire hand (fingers spread), gently take a firm hold of the child's abdomen. When you feel him pulling in his stomach, release your hand. Not only does this assist him in toning abdominal walls, it frequently helps to regularize bowel movements.

   (c) Sit-ups work wonders in strengthen-

ing an adult's abdominal muscles. They produce the same results in the child. The only difference is that you do most of the work for him. Place him flat on his back. Hold his legs down with one hand. With your other hand underneath his neck, raise him upwards.

2. Back Movements

(a) Place the child flat on his stomach, arms extended flat above his head. Stroke the length of his back. This stroking will make him raise his head and back.

(b) Using a large beach ball or a cage ball, place the child flat on his stomach on the ball, arms extended above his head. Hold his buttocks and move the ball gently. Slightly above his eye level, dangle a toy or any brightly-colored object. While supporting his weight on his arms and hands, he will raise his neck, back, and head to look at the toy.

(c) Place the child on the floor, lying on his stomach, arms extended outward from his shoulders. Have him grasp one of your fingers in each fist. Gently pull your fingers upward. The child, holding onto your two fingers, will make an effort to lift his head and back.

3. Rolling Movements

(a) In order for the child to be able to roll over from his stomach to his back and from his back to his stomach, he must have some prerequisite skills. He needs some head and neck control, as well as strength in his arms to push himself over. It is impossible for him to perform a rolling movement unless he has mastered other basic skills. It is much easier for the child to roll from his stomach to his back, so begin assisting him from that

position. Place the child flat on his stomach. Have his arms bent at the elbows and tucked close to his body. This will enable him to lift his head and back while supporting weight on his arms. Ease back his shoulder on his right side. Turning on his trunk and rolling onto his back follows almost automatically. Support the child's head so that he does not bang it as he rolls over. Repeat in the same manner with the left side of his body. Reverse this procedure for rolling from back to stomach.

POSITIONING

Positioning plays a major part in helping the child achieve his maximum motor development. Many times, a severely involved child tends to be rigid. He is not able to move and change his position on his own. The longer a child remains in one position, the stiffer and tighter his muscles become. The youngster should not be in any one position for any longer than one hour. A slight shift in position is recommended more frequently (every fifteen minutes).

Think of body positions in relationship to yourself. Even when you are sitting in a chair, you change your position every few minutes. You cross your legs, you shift your weight, you move your arms. All of these movements are done unconsciously to make you more comfortable. When you get up from the chair, you automatically stretch your muscles to relieve any discomfort or stiffening. The child is probably not capable of these simple positioning movements. Again, you must do them for him.

Changing the child's positions from his back, to his stomach, to his side will not only provide stimulation, it will help in preventing deformities. The more comfortable he is, the more relaxed he will become. Below are some helpful hints:

1. Do not leave the child lying on his back for long periods of time. Backlying tends to make him more rigid. This makes it difficult for him to move his arms and legs. Arms usually lie at his sides; hands seldom, if ever, contact each other. Head control has no chance to develop.

2. Children with hip and knee deformities often cannot lie on their stomachs. This is not only uncomfortable, but it can also be very damaging and can increase deformities that are already present. If there is little head control, the child lying on his stomach might not be able to turn his head to keep breathing passages open.

3. Positioning the child on his side is excellent for most severely involved youngsters. Sidelying tends to relax rigid muscles. It permits the child to see what is going on around him. It also allows the hands to come together. The child can be propped in this position with sandbags or pillows.

4. Constantly check the child's body to see if any pressure sores are forming. A severely handicapped child often cannot tell you where it hurts.

5. The child will not be able to relax unless you yourself are relaxed and at ease. Do not be afraid to move the child, but do so with easy, gentle motions. Avoid sudden and jerky movements as these will only startle him and cause him to become more tense. Always accompany movement with a soft, soothing voice. Although he may not understand what you are saying, he will respond better to a warm, loving voice.

EMERGENCY SITUATIONS COMMON TO EXCEPTIONAL CHILDREN

Convulsions

Symptoms of convulsions or seizures include muscle spasms and twitching of various degrees. In some cases, rolling of the eyes, incontinence, and frothing at the mouth also occur. The seizure may last in duration from a few seconds to several minutes and may differ in degree of severity. Mild convulsions are called "petit mal." Severe convulsions are known as "grand mal." Both types may occur repeatedly, and the pattern of the seizure will differ according to the individual.

1. Grand Mal Seizure

   (a) Don't try to restrain movement. The convulsion must run its course.

   (b) Place child on floor with head turned to one side to allow saliva to drain, thus preventing choking.

   (c) Push away nearby objects to prevent injury.

   (d) Place padded tongue depresser or handkerchief (not fingers) between child's teeth to prevent him from biting his tongue. (NOTE: If teeth are already clenched shut, do not try to force the mouth open).

   (e) When the seizure has passed and the muscle spasms have stopped, the child will relax and perhaps go to sleep. Cover him with a blanket to keep him warm.

   (f) Get appropriate medical attention.

2. Choking While Eating

If the child is unable to speak or make a sound, he may be choking on a large piece of food. With this type of obstruction in the windpipe, he will remain conscious only a few minutes.

(a) Act quickly!

(b) Place child on his side, strike him soundly between the shoulder blades using the flat of the hand.

(c) Open mouth; place middle and index fingers down throat and pull out the food which may be obstructing his air way.

SMALL CHILD:

(a) Hold him by ankles, letting head hang down.

(b) Open mouth; pull tongue forward, letting object fall out.

(c) Begin mouth to mouth resuscitation if child is having difficulty breathing after the object is expelled.

(d) In all cases if the object is not expelled from throat, contact a doctor. Foreign objects entering the lungs may cause serious complications.

LARGER CHILD:

(a) Hold the child head down over your arm or legs. Follow above procedures.

ADULT:

(a) Place person on his side -- head

lower than trunk, or have him lean over a back of a chair. Follow above procedure.

3. Hyperventilation

This is a very common complication of emotional upset in hyperactive individuals who breathe too rapidly.

(a) Have the child breathe slowly for a period of ten minutes.

(b) If this doesn't work, seek medical attention. Prolonged hyperventilation may cause brain damage.

4. Fainting

This may be caused by sudden emotional upset, a poorly ventilated room, fatigue, or hunger.

(a) Place child on his back with head low.

(b) Make sure his airway is clear.

(c) Loosen clothing.

(d) Apply cold cloth.

(e) Seek medical attention if fainting lasts more than a few minutes.

5. Insulin Reaction

Insulin reaction is caused by a rapid drop in blood sugar level. The symptoms come on rapidly. The child will sweat profusely and appear highly nervous. His pulse will be rapid and his breathing will be shallow. Gradually, unconsciousness will result.

(a) If the victim is a known diabetic and can swallow, give him something sweet (candy, orange juice, etc.)

(b) Get him to a doctor as soon as possible.

6. Diabetic Coma

The symptoms come on rapidly. The skin will appear flushed and feels dry. The tongue will be dry, and the child's breathing will be labored. He will behave as though drowsy, and his breath will have a fruity odor. Immediate medical attention is necessary if his life is to be saved.

DEFINITION OF SOME COMMON MEDICAL TERMS

Prefixes

Anti - against
Antitoxin -- a serum immunized against poisonous toxins

Arthro - joint or articulation
Arthritis - inflammation in a joint

Bi - two
Bilateral - on both sides

Cephal - head
Encephalitis - inflammation of the brain
Hydrocephalus - fluid within the skull

Cyano - blue
Cyanosis - blueness of the skin, especially of lips, fingernails, toenails

De - down, from, away, removal
Degenerate - to revert to a lower type

Dis - apart, away from
Dislocation - displacement of organs or joint surfaces

Dys - difficult, ill, bad, hard
Dystrophy - weakening of muscles

Hem, Hema, Hemo, Hemato - pertaining to blood
Hemorrhage - excessive discharge of blood
Hematoma - a collection of blood
Hemophilia - bleeders disease (hereditary blood condition transmitted by female)

Hemi - half
Hemiplegia - paralysis of one half of the body (one side)

Hyper - too much, over, excess
Hypertrophy - enlargement of an organ or part of the body
Hyperthyroid - too much thyroid

Hypo - deficiency of, too little
Hypothyroid - too little thyroid
Hypoglycemia - deficiency of sugar in the blood stream

Mal - bad, painful
Malformation - badly or abnormally formed

Myelo - marrow or relating to the spinal cord
Myelitis - inflammation of the spinal column or bone marrow

Myo - muscle
Myositis - inflammation of the muscle tissue
Myocarditis - inflammation of the cardiac muscle

Nephro - pertaining to the kidney
Nephritis - inflammation of kidney

Neuro - nerve
Neuritis - inflammation of a nerve
Neuralgia - pain in a nerve

Ortho - a combining form meaning straight
Orthodontia - a correction of dental irregularities
Orthopedics - that branch of surgery dealing with corrections of deformities and treatment of chronic disease of the joints and spine

Osteo - bone
Osteomyelitis - Inflammation of the bone marrow

Para - a faulty or disordered condition
Paraplegia - paralysis of both legs and lower part of body

Path - disease, disorder
Pathogenic - producing disease
Pathology - a study of changes in function

Peri - around, outside, circumference
Periosteum - outside covering of the bone
Pericardium - outside layer of the heart

Polio - gray
Anterior Poliomyelitis - inflammation of the anterior horn cells of gray matter of spinal cord

Psyche - mind, soul, spirit
Psychiatry - treatment of mental disorders
Psychology - the science of studying the mind

Quadri - four
Quadri - paralysis affecting all four limbs

Sclero - hardening
Sclerosis - hardening of connective tissues of an organ

Suffixes

-ectomy - cut out or remove surgically
  Appendectomy - removal of appendix
  Tonsillectomy - removal of tonsils

-itis - inflammation
  Appendicitis - inflammation of the appendix
  Tonsilitis - inflammation of the tonsils

-osis - condition - especially a morbid condition
  Neurosis - functional disorder of nerves
  Psychosis - abnormal condition of the mind resulting in unusual behavior

-phobia - fear, morbid dread
  Photophobia - fear of light
  Claustrophobia - fear of confinement

-plegia - paralysis
  Diplegia - paralysis of similar parts of both sides of the body
  Hemiplegia - paralysis of one half of the body
  Monoplegia - paralysis of a single limb
  Paraplegia - paralysis of lower half of body and both legs
  Quadriplegia - paralysis of all four limbs

Terms

Anoxia - anoxemia - lack of oxygen

Astigmatism - irregular refraction causing blurred vision

Cardiac - pertaining to the heart
  Rheumatic Heart Disease - an abnormal condition of the heart resulting from acute rheumatic fever which affected the heart valves and the pericardium

Cerebral - Cortex - pertaining to the brain
  Cerebral agenesis - lack of brain tissue
  Cerebral palsy - paralysis caused by a lesion in the brain

Electroencephalography - graphic recording of electrical currents developed in cortex by brain action (EEG)

Electrocardiography - a method of recording changes of electrical potential during the heart beat. Valuable in diagnosing irregularities of heart action (EKG)

Hyperopia - far sightedness

Immunity - resistance to disease
(a) Active - acquired as the result of having had the disease
(b) Congenital or Natural - that which is possessed by a person from birth
(c) Passive - resulting from innoculation with serum from an animal which has acquired active immunity against the disease

Myopia - near sightedness

Nystagmus - involuntary rapid movements of eyeball

Palsy - same as paralysis

Paralysis - loss of power of voluntary motion
(a) Flaccid - soft, flabby, relaxed
(b) Spastic - increased irritability and contractibility

Prognosis - prediction of the course and end of the disease

Spine -
Normal curves - cervical, dorsal, lumbar, sacral
Abnormal curves - lordosis (swayback, exaggerated lumbar curve); kyphosis (humpback, exaggerated dorsal curve); scoliosis (lateral curvature of spine)

Strabismus - crossed or diverging eyes

Toxic - poisonous condition of the system

Toxoid - non-poisonous modification of a toxin

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Intermediate Unit #13 Developmental Survey - Office of Special Education Services, Lancaster-Lebanon I.U. #3, 1383 Arcadia Road, Lancaster, Pa. 17601.

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APPENDIX

DIRECTORIES OF SERVICES AND FACILITIES FOR MENTALLY RETARDED

1. Clinical Programs for Mentally Retarded Children, 1969

   Maternal and Child Health Service
   Health Services & Mental Health Administration
   Department of Health, Education and Welfare
   Parklawn Building
   2600 Fishers Lane
   Rockville, Maryland 20852

2. Directory for Exceptional Children, 1969

   Porter Sargent Publishers
   11 Beacon Street
   Boston, Massachusetts 02108

3. Directory of Residential Facilities for the Mentally Retarded, 1969

   American Association on Mental Deficiency
   Publications Sales Office
   49 Sheridan Avenue
   Albany, New York 12210

4. Directory of State and Local Resources for the Mentally Retarded, 1969

   Secretary's Committee on Mental Retardation
   U. S. Department of Health, Education and Welfare
   Washington, D. C. 20201

5. Easter Seal Directory of Resident Camps for Persons with Special Needs, 1971

   National Easter Seal Society for Crippled Children and Adults
   2023 West Ogden Avenue
   Chicago, Illinois 60612

6. In-Service to the Mentally Retarded, 1970

   President's Committee on Mental Retardation
   U. S. Department of Health, Education and Welfare
   Washington, D. C. 20201

A GUIDE TO AGENCIES CONCERNED WITH EXCEPTIONAL CHILDREN (NATIONAL AGENCIES)

American Academy of Pediatrics
1801 Hinman Avenue
Evanston, Illinois 60204

American Association for Maternal and Child Health
116 South Michigan Avenue
Chicago, Illinois 60603

American Association on Mental Deficiency
5201 Connecticut Avenue, N. W.
Washington, D. C. 20015

American Diabetes Association
18 East 48th Street
New York, New York 10017

American Foundation for the Blind
15 West 16th Street
New York, New York 10011

American Heart Association
44 East 23rd Street
New York, New York 10010

American Psychological Association
1333 Sixteenth Street, N. W.
Washington, D. C. 20036

American Speech and Hearing Association
9030 Old Georgetown Road
Washington, D. C. 20014

Association for the Aid of Crippled Children
345 East 46th Street
New York, New York 10017
(Spina bifida booklet)

Association for Children with Learning Disabilities
2200 Brownsville Road
Pittsburgh, Pennsylvania 15210

Association for Education of the Visually Handicapped
1604 Spruce Street
Philadelphia, Pennsylvania 19103

Association for the Visually Handicapped
1839 Frankfort Avenue
Louisville, Kentucky 40206

Bio-Sciences Information Exchange
Smithsonian Institute
1113 Dupont Circle Building
Washington, D. C. 20036

Council for Exceptional Children
1920 Association Drive
Reston, Virginia 22091
(A Department of the N.E.A.)

Epilepsy Foundation of America
1828 "L" Street, N. W.
Washington, D. C. 20036

Foundation for Research and Education in Sickle Cell Disease
4[illegible]-431 West 120th Street
New York, New York 10027

Joseph P. Kennedy, Jr. Foundation
Suite 205
1701 "K" Street, N. W.
Washington, D. C. 20006
(Mental Retardation)

Muscular Dystrophy Association of America, Inc.
1790 Broadway
New York, New York 10019

National Aid to the Visually Handicapped
3201 Balboa Street
San Francisco, California 94121

National Association of Hearing and Speech Agencies
919 18th Street, N. W.
Washington, D. C. 20006

National Association for Mental Health, Inc.
10 Columbus Circle
New York, New York 10019

National Association for Retarded Citizens
2709 Avenue E., East
Arlington, Texas 76011

National Cystic Fibrosis Foundation
3379 Peachtree Road, N. E.
Atlanta, Georgia 30326

National Easter Seal Society for Crippled Children and Adults
2023 West Ogden Avenue
Chicago, Illinois 60612

National Foundation - March of Dimes
Post Office Box 2000
White Plains, New York 10602

National Kidney Foundation
116 E. 27th Street
New York, New York 10016

National Paraplegia Foundation
333 N. Michigan Avenue
Chicago, Illinois 60601

National Society for Prevention of Blindness, Inc.
79 Madison Avenue
New York, New York 10016

National Tay-Sacks and Allied Diseases Association, Inc.
200 Park Avenue, South
New York, New York 10003

FEDERAL AGENCIES

Closer Look
Box 19428
Washington, D. C. 20036
(A National Special Education Information Center designed to help parents and others find services for children with mental, physical, emotional, and learning handicaps, sponsored by the U. S. Department of Health, Education and Welfare)

U. S. Public Health Service
National Institutes of Health
Public Information Offices
Bethesda, Maryland 20014

Office of Education
Department of Health, Education and Welfare
Washington, D. C. 20201

Bureau of Public Assistance
Social Security Administration
Washington, D. C. 20201

Children's Bureau
Social Security Administration
Department of Health, Education and Welfare
Washington, D. C. 20201

STATE AND LOCAL AGENCIES

Mental Health/Mental Retardation
Base Service Units
(Consult phone directory for local address and phone number)

Local hospitals and health centers
(which offer diagnostic and counseling services to exceptional children and their parents)